

U.S. Serial No. 10/811,856

520.43708X00

**IN THE CLAIMS**

1. (Previously presented) An area assigning method in a storage management system for managing a storage device for storing data, comprising the steps of:

holding management information for managing the storage device, area assignment information for managing an area assigning state of the storage device, and history information for managing a history of area assuring and release;

pursuant to an assignment request for temporarily using an area of the storage device in association with designation of an area size and a using period, calculating the size of a constantly-assigned area of the storage device previously requested, by referring to the history information;

determining, based on the calculated size of the constantly-assigned area and on the designated area size, whether or not there is sufficient storage device capacity for the constantly-assigned area and for the area of the storage device requested for temporary use, for the using period which is requested for assignment; and

assigning the area size designated by the request, the using period, and the area of the storage device having the

U.S. Serial No. 10/811,856

520.43708X00

area size, when the area of the storage device can be assigned as a result of the determination.

2. (Previously presented) The area assigning method according to Claim 1, further comprising the steps of:

obtaining a necessary area size and a necessary using period upon executing processing for temporarily using the storage;

requesting assignment of the area which is temporarily used for storage management; and

executing processing by using the area assigned for the storage management and requesting release of the assigned area after completing the processing.

3. (Previously presented) The area assigning method according to Claim 1, further comprising the steps of:

obtaining an execution time of reediting processing and a size of a work area necessary for reediting when a database management system executes the reediting processing;

requesting the assignment of the area which is temporarily used for the storage management; and

U.S. Serial No. 10/811,856

520.43708X00

executing the reediting, as a work area, the area assigned for the storage management and requesting release of the work area when the reediting completes.

4. (Previously presented) The area assigning method according to Claim 1, wherein in the step of calculating the size of the constantly-assigned area, when the storage management system receives a request for an assignment reservation for temporarily using the area in association with the designation of a using time, the area size, and the using period, the size of the constantly-assigned area is calculated based on an area reservation state and the history information,

in the determining step, it is determined whether or not a designated area can be assigned at a designated period from a designated time in accordance with the calculated size of the constantly-assigned area, and

in the area assigning step, when a request is received for assigning a reserved area at a requested time, the designated period and the reserved area are assigned for the request source.

U.S. Serial No. 10/811,856

520.43708X00

5. (Previously presented) The area assigning method according to Claim 4, further comprising the steps of:

obtaining an execution date, a necessary area size, and a necessary period upon planning the execution of processing which temporarily uses the storage;

requesting the assignment reservation of the area which is temporarily used for the storage management;

requesting the assignment of the reserved area for the storage management at the execution date; and

executing the processing by using the area assigned for the storage management and requesting the release of the area which is not necessary after completing the processing.

6. (Previously presented) The area assigning method according to Claim 4, further comprising the steps of:

scheduling execution of reediting processing and obtaining a scheduled date, a size of a work area necessary for the reediting processing, and execution time of the reediting processing;

requesting the assignment reservation of the area which is temporarily used for the storage management;

requesting the assignment of the reserved area on the scheduled date of executing the reediting; and

U.S. Serial No. 10/811,856

520.43708X00

executing the reediting of the assigned area for the storage management as the work area and requesting the release of the assigned area upon completing the reediting,

whercin the reediting processing is executed by a database management system.

7. (Original) The area assigning method according to Claim 4, wherein the storage management system returns reservation information and area assignment information to a request source upon receiving the request for inquiring the reservation state.

8. (Original) The area assigning method according to Claim 5, further comprising the steps of:

requesting the assignment reservation of the area which is temporarily used for the storage management and obtaining a reservation date based on the reservation state when the area is not reserved on the requested date and then an inquiry of the reservation state is requested; and

setting the obtained date as the requested date and requesting the assignment reservation of the area which is temporarily used for the storage management.

U.S. Serial No. 10/811,856

520.43708X00

9. (Original) The area assigning method according to Claim 6, further comprising the steps of:

requesting the assignment reservation of the work area necessary for editing, and when the area is not reserved on the reediting scheduled date, requesting an inquiry of the reservation state by a database management system;

obtaining the reservation date based on the reservation state and then changing a reediting execution scheduled date to the obtained date; and

requesting the assignment reservation of the work area necessary for reediting on the changed reediting execution scheduled date.

10-12. (Canceled).

13. (Currently amended) ~~[[The]]~~ An area management method according to Claim 12 in a storage management system for managing a storage device for storing data, further comprising the steps of:

holding management information for managing the storage device, area assignment information for managing an area assignment state of the storage device, and history

U.S. Serial No. 10/811,856

520.43708X00

information for managing a history on area assuring and release;

receiving an assignment request for temporarily using an area of the storage device in association with designation of an area size and a using period for the requested area;

determining whether or not an area having the requested area size can be assigned for the requested using period by referring to information calculated from the held history information;

assigning an area having the requested size for the requested using period to a request source if the area can be assigned as a result of the determination;

calculating the size of a constantly-assigned area of the storage device previously requested, based on the history information referenced in the determining step; and

determining whether or not the requested area can be assigned for the requested using period based on the calculated size.

14-15. (Canceled).

16. (Original) A program having a function for executing the method according to Claim 1.

U.S. Serial No. 10/811,856

520.43708X00

17. (Previously presented) A storage management system for managing a storage device for storing data in response to a request from an application, the storage management system comprising:

a main memory for holding management information for managing the storage device, area assignment information for managing an area assignment state of the storage device, and history information for managing a history of area assuring and release; and

processing means for assigning an area of the storage device to the application in accordance with the management information and the area assignment information,

the processing means comprising:

calculating means for calculating, pursuant to an assignment request for temporarily using an area of the storage device in association with designation of an area size and a using period, calculating the size of a constantly-assigned area of the storage device previously requested, by referring to the history information;

means for determining, based on the calculated size of the constantly-assigned area and on the designated area size, whether or not there is sufficient storage device



U.S. Serial No. 10/811,956

520.43708X00

capacity for the constantly-assigned area and for the area of the storage device requested for temporary use, for the using period which is requested for the assignment; and

assigning means for assigning the area size and the using period designated by the request, and an area of the storage device having the area size, when the area of the storage device can be assigned as a result of the determination.

18. (Original) The storage management system according to Claim 17, wherein the main memory further holds a table of a temporarily-assigned area list which stores a user name to which the area is assigned, an area name, an assignment size, and a using period.

19. (Previously presented) The storage management system according to Claim 18, wherein the processing means further comprises means for monitoring whether or not the assigned using period has expired, by referring to the table of the temporarily-assigned area list, and returns a result of the monitoring by the monitoring means to a console terminal.

U.S. Serial No. 10/811,856

520.43708X00

20. (Previously presented) The storage management system according to Claim 19, wherein the main memory further stores an account table for managing a user name and a using period of the storage device, and a charge table for registering at least an excess of use of an area by temporary assignment on the storage device, and

wherein the processing means further comprises calculating means for calculating an excess of an area use charge by referring to the account table and the charge table.